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FINAL REPORT

Color Reproduction Systems Review

15 April 1965

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THIS REPORT CONTAINS 69 PAGES:

a. Cover Page - One page.
b. Table of Contents - Two pages.
c. List of Illustrations - One page.
d. Body of Report - Sixty-five pages.

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PAR 213
15 Apr 65

TABLE OF CONTENTS

	Page
SUMMARY	1
SUBJECT	2
TASK/PROBLEM	2
INTRODUCTION	2
Acquisition Information	2
General Background Information	2
DISCUSSION	8
Color Duplicating Materials	8
Reversal Systems	8
Negative-Positive Systems	12
Enlarging Systems	14
Color Printing Equipment	19
Contact Printers	19
Step Printers	26
Enlarging Printers	27
Light Source Performance Requirements	29
1:1 Optical Printing	30
Color Processing Equipment	30
Continuous Machines	30
Roller Transport Machines	32
Drum-Type Color Processors	33
Processor, Small Scale	34
Viscous Negative-Positive Color Processors	37

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Approved For Release 2005/06/06 : CIA-RDP78B04770A002400040001-2

Approved For Release 2005/06/06 : CIA-RDP78B04770A002400040001-2

TABLE OF CONTENTS

DISCUSSION (Continued)

	Page
Post Processing Equipment	37
Type of Equipment Discussed	37
Cleaning	38
Lubrication	38
Titling	38
Slitting	39
Viewing Equipment	39
General Information	39
Transparencies	40
Stereo Viewing	42
Reflection Prints	42
CONCLUSIONS	44
General	44
Materials	44
Equipment	46
RECOMMENDATIONS	52
General	52
Materials	52
System Improvements	55
Equipment	55
APPENDIX	58

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Approved For Release 2005/06/06 : CIA-RDP78B04770A002400040001-2

Approved For Release 2005/06/06 : CIA-RDP78B04770A002400040001-2

LIST OF ILLUSTRATIONS

Figure		Page
1	Haze Attenuation	4
2	Film Response	5
3	Acquisition Altitude and Film Selection	6
4	Film Latitude	7
5	System Study for Enlarged Color Duplicates	15
6	Negative-Positive Color Reproduction Systems	17
7	Color/Black-and-White Stereo System	18
8	Color-Color Stereo System	20
9	Reproduction Series: Color to Color	21
10	Reproduction Series: Color Enlarging	23
11	Reproduction Series: Color to Black-and-White	24
12	Color Printing Methods	25
13	Process Programmer	36
14	Modified Hand Stereoscope for Color/Black-and-White Pairs	43
Table 1	Recommended Color Reproduction Systems	53

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Approved For Release 2005/06/06 : CIA-RDP78B04770A002400040001-2

Approved For Release 2005/06/06 : CIA-RDP78B04770A002400040001-2

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PAR 213
15 Apr 65

COLOR REPRODUCTION SYSTEMS REVIEW

SUMMARY

The increasing importance of color photo reconnaissance brought about a real need to examine the requirements of color reproduction systems. This project was to determine the products, methods, materials, equipment available, assess the applications, isolate general and specific problem areas, and finally recommend possible solutions.

Where possible, versatile available equipment was considered for direct application or limited modification. Product quality and timely distribution of reproductions to the community were considered major factors in evaluating the elements being studied.

The color quality of reproductions depends to a large extent upon the proper selection of film and exposure for the acquisition. The image quality of the color original is dependent on many factors; i.e., altitude, sun angle, camera angle, lens quality -- especially color correction -- and the color of target areas. The color reproduction of an original is greatly simplified when these conditions are satisfactorily balanced.

Improvements in existing equipment and the need for the development of additional specialized equipment were determined. Specialized techniques not common in aerial reconnaissance photo-reproduction systems were considered. Enlarging systems were examined and practical methods tested successfully. Stereoscopic viewing with various combinations of color pairs and color with black-and-white as a pair indicated that stereo is useful and desirable.

A continued program is recommended to derive the fullest benefits from the use of color materials.

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